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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,829	09/18/2003	Cheryl Baldwin	67502	6014
48940	7590	04/14/2006		
FITCH EVEN TABIN & FLANNERY 120 S. LASALLE STREET SUITE 1600 CHICAGO, IL 60603-3406			EXAMINER PRATT, HELEN F	
			ART UNIT 1761	PAPER NUMBER

DATE MAILED: 04/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/665,829	BALDWIN ET AL.	
	Examiner	Art Unit	
	Helen F. Pratt	1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashmead (4,830,716) in view of Trusovs (6,992,203) and Fox et al. (5,186,965).

Ashmead discloses a process of making a mineral complex by reacting an amino acid ligand with metal oxides, hydroxides and carbonates and spray drying. Claims 1- 3 differ from the reference in the particular molar ratio of mineral amino acid to organic acid. The reference discloses amounts from 2 parts to 3.5 parts organic acids in Ex. 1 and two and 50 grams of citric acid in Ex. 4, all in the first 4 lines. Trusovs discloses in the Prior Art, that it is known that metal chelates can be made from metal ions and organic acids with a mole ratio of one mole of metal to one to three moles of organic acid (col. 1, lines 25 to 44) and that amino acid chelates can be made by reacting an acid with a metal ion in the form of an oxide, hydroxide or salt. Nothing is seen that the amounts in Ashmead are not in the claimed range. Therefore, it would have been obvious to use known ratios as shown by Ashmead, and the processing method of Trusovs to make a metastable mineral complex. Other methods of rapidly drying a mineral complex are disclosed by Fox et al. who disclose a method of making a metastable mineral complex by reacting calcium carbonate, calcium hydroxide or

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calcium oxide with an organic acid in an aqueous solution, in the presence of citric or ascorbic acid (organic acids) then freeze-drying and grinding to reduce the particle size (abstract and col. 3, lines 65-68). Even though Fox et al. do not have an amino acid in the process, the product is still metastable (col. 1, lines 10-16). As Fox et al. disclose that it is known to freeze dry a metastable mineral complex, it would have been obvious to use such in the process of Ashmead for its known function of rapidly drying the product.

Claim 4 further requires the use of aspartic acid or glutamic acid, and claims 5 and 6 calcium and magnesium and claim 7 various organic acids. Ashmead discloses the use of the claimed amino acids, and minerals (col. 5, lines 25-39). Citric acid is disclosed in col. 7, lines 35 to 38). Therefore, it would have been obvious to use known ingredients in the claimed composition.

Claim 8 further requires a pH of from 2 to 7. Various pH's are disclosed by the reference to Ashmead depending on the reactants (col. 10, lines 35-38, col. 7, lines 40-45). It is seen that it would have been within the skill of the ordinary worker to vary the reactants to produce particular pH's. Therefore, it would have been obvious to use pH's within the claimed range depending on the reactants chosen.

The limitations of claims 10 and 11 as to the product have been disclosed above and are obvious for those reasons. Nothing new is seen in using the metastable complex in a food or beverage as fortification of such is well known. Therefore, it would have been obvious to use the claimed composition in a food or beverage.

Claim 13 further requires that the composition be in the form of a dry powder and the use of various cationic mineral states. The product is dried as shown by Ashmead as are various minerals with the claimed valences (col. 11, lines 50-60), and grinding is known as shown by Fox et al. as above. Therefore, it would have been obvious to grind the product as shown by Fox et al. in the composition of Ashmead.

The further limitations of claims 14-15, 17, 19 have been disclosed above and are obvious for those reasons. Claims 16, 18 and 20 further require the use of magnesium or calcium, which are disclosed in col. 9, lines 30-35 of Ashmead.

INFORMATION DISCLOSURE

The office has not received the reference to Weaver, found on the IDS of Jan. 8, 2004.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen F. Pratt whose telephone number is 571-272-1404. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Milton Cano, can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hp 4-11-06


HELEN PRATT
PRIMARY EXAMINER